

Title (en)  
AFT COUNTER-ROTATING BOUNDARY LAYER INGESTION ENGINE

Title (de)  
GEGENLÄUFIGER GRENZSCHICHTAUFNAHMEHECKMOTOR

Title (fr)  
MOTEUR D'INGESTION DE COUCHE LIMITE CONTRAROTATIF ARRIÈRE

Publication  
**EP 3557036 A1 20191023 (EN)**

Application  
**EP 19165294 A 20190326**

Priority  
US 201815945907 A 20180405

Abstract (en)  
A boundary layer ingestion engine (108) includes a fan section (200) configured to extend into a boundary layer of a full annulus of an aft end (120) of a fuselage (101) of an aircraft (100). The fan section (200) includes a first fan stage (202) and a second fan stage (204). The boundary layer ingestion engine (108) also includes a differential planetary gear system (206) operable to transform rotation of an input shaft (208) into counter rotation of a first shaft (212) coupled to the first fan (202) stage and a second shaft (214) coupled to the second fan stage (204). The boundary layer ingestion engine (108) further includes a motor (118) operable to drive rotation of the input shaft (208).

IPC 8 full level  
**F02K 3/072** (2006.01); **F02K 5/00** (2006.01)

CPC (source: EP US)  
**B64C 21/01** (2023.01 - EP US); **F02K 3/072** (2013.01 - EP US); **F02K 5/00** (2013.01 - EP US); **B64D 27/026** (2024.01 - US); **B64D 27/20** (2013.01 - US); **F02C 7/36** (2013.01 - EP US); **F04D 29/5806** (2013.01 - US); **F04D 29/5813** (2013.01 - US); **F05D 2260/213** (2013.01 - US); **F05D 2260/40311** (2013.01 - EP US)

Citation (search report)  
• [A] US 2017297727 A1 20171019 - NIERGARTH DANIEL ALAN [US], et al  
• [A] US 2018051716 A1 20180222 - CHEUNG LAWRENCE CHIH HUI [US], et al  
• [A] US 2018050810 A1 20180222 - NIERGARTH DANIEL ALAN [US], et al

Designated contracting state (EPC)  
AL AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HR HU IE IS IT LI LT LU LV MC MK MT NL NO PL PT RO RS SE SI SK SM TR

Designated extension state (EPC)  
BA ME

DOCDB simple family (publication)  
**EP 3557036 A1 20191023**; **EP 3557036 B1 20210224**; **EP 3557036 B8 20210407**; US 11098678 B2 20210824; US 2019309705 A1 20191010

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